



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 01-0280541

THE APPLICATION OF ATASCOSA DISPOSAL WELL SVCS, LLC FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE MEEKS SWD LEASE, WELL NO. 1, FASHING (EDWARDS LIME -B-) FIELD, ATASCOSA COUNTY, TEXAS

HEARD BY: Andres J. Trevino, P.E. - Technical Examiner
Laura Miles-Valdez - Legal Examiner

PFD PREPARED BY: Richard D. Atkins, P.E. - Technical Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Christopher S. Hotchkiss
George C. Neale
Rick Johnston
Dave Blankenship
Richard Parker

Atascosa Disposal Well Svcs, LLC

PROTESTANTS:

Eric Opiela
Herman Kellner, Jr.
Lee Roy Weigang

Herman Kellner, Jr.

Linda O'Connell

Herself

OBSERVERS:

John Soule
J.D. Ivey
Austin Ivey

American Disposal Services, Ltd.

PROCEDURAL HISTORY

Application Filed:	October 9, 2012
Protest Received:	October 2, 2012
Request for Hearing:	January 17, 2013
Notice of Hearing:	March 5, 2013
Hearing Held:	July 16, 2013
Transcript Received:	July 30, 2013
Proposal for Decision Issued:	December 3, 2013

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

Atascosa Disposal Well Svcs, LLC ("Atascosa") requests commercial disposal authority pursuant to Statewide Rule 9 for the Meeks SWD Lease, Well No. 1, Fashing (Edwards Lime -B-) Field, Atascosa County, Texas.

Notice of the application was published in the *Pleasanton Express*, a newspaper of general circulation in Atascosa County, Texas, on June 12, 2013. Notice of the application was sent to the Atascosa County Clerk, offset operators within 1/2 mile and to the surface owners of the disposal tract and each tract which adjoins the disposal tract on June 6, 2013.

The application was determined to be administratively complete by Commission staff, but is protested by surface owners in the area of the proposed disposal well.

DISCUSSION OF THE EVIDENCE**Applicant's Evidence**

The subject well has not yet been drilled, but will be located on a 10 acre tract that is adjacent to and north of FM 2924. The tract is located in a rural area approximately one mile northwest of the unincorporated community of Fashing, Texas. The proposed facility is not located in the city limits or extra territorial jurisdiction of any city or town. Atascosa plans to drill a new injection well down to 6,800 feet. The well will have 9 5/8" surface casing set at 5,150 feet that will be cemented to the surface with 2,700 sacks of cement. Atascosa proposes to run 7" production casing to 6,800 feet that will be cemented up to 4,000 feet with 600 sacks of cement. The well will be equipped with 4 1/2" tubing and packer set at 5,600 feet (See attached Atascosa Exhibit No. 3 - Wellbore Diagram).

The proposed disposal interval is the Lower Wilcox formation between 5,700 feet and 6,800 feet. The disposal interval is used for disposal in other area wells and is continuous and suitable for disposal, with almost 400 feet of porous sand. In addition,

there is over 400 feet of impermeable shale above the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the disposal interval. Atascosa requests authority to dispose of a maximum of 15,000 barrels of saltwater and RCRA¹ exempt waste per day with a maximum surface injection pressure of 2,000 psig.

The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality groundwater be protected down to a depth of 5,000 feet below the land surface. The base of the Useable Source of Drinking Water ("USDW") is at 5,250 feet. Atascosa submitted a GAU letter dated June 18, 2013, which stated that injection into the proposed disposal interval will not endanger the freshwater strata in the area. There are no wells located within the 1/4 mile radius of review that penetrate the Lower Wilcox formation. Although there are a number of wells located within the 1/2 mile radius of review, the wells either do not penetrate the disposal zone, or have cement throughout the disposal zone, with the exception of the Schuman Gas Unit No. 1, Well No.1, which is located 2,380 feet from the proposed disposal well.

Atascosa's expert engineering witness submitted a pressure front water displacement calculation to determine the distance from the proposed disposal well that the injected water front would be after 20 years of injection. The available reservoir data for the Lower Wilcox formation showed an average porosity of 20%, an average permeability of 250 millidarcies and an average net pay thickness of 368 feet in the area of the proposed well. After injection of 15,000 BWPD for 20 years, or a total of 109 MMBW, the expert calculated that the areal extent of the injected water front would be approximately 191.8 acres, and have a plume radius of 1,631 feet from the disposal well. In addition, the pressure increase in the disposal formation at the closest well was calculated to be only 46 psia. Because the Schuman Well is approximately 2,380 feet from the proposed well, Atascosa's expert engineering witness testified that the Schuman Well cannot serve as a conduit from which injected fluids can vertically migrate out of the intended disposal zone.

The proposed disposal facility is located in the southeastern portion of Atascosa County. The Eagle Ford formation development core area encompasses Atascosa County and the two adjoining counties of Karnes and Live Oak. Atascosa plans to use the proposed disposal well to dispose of produced water and fracture stimulation water generated as a result of the nearby active and ongoing development of the Eagle Ford and Fashing (Edwards Lime) formations. Atascosa opined that the Eagle Ford formation trend wells will produce significant volumes of frac and produced saltwater. Atascosa believes that the proposed disposal well is necessary to accommodate the increasingly active drilling, as there are currently only 8 other commercial disposal wells within a 15 mile radius. However, 6 of those 8 wells are at least 11 miles or further away in Karnes County from the proposed disposal facility.

¹ Resource Conservation and Recovery Act: Examples of RCRA exempt oil and gas waste includes produced water, drilling fluids, frac flowback fluids, rigwash and workover wastes.

Of the two "active" disposal wells near the proposed facility, Atascosa's operations manager testified that one of the wells, the SNG Operating, LLC - Richter Lease, Well No. 2, consists of a tank and a christmas tree, and further testified that he has never seen activity on the lease. The second of the two active wells appears to only accept oil and gas wastes from its own trucks, and therefore would be considered a private commercial disposal well. American Disposal Services, Ltd. has a nearby permitted location, but is not yet open for business. Atascosa presented testimony from an experienced salt water hauler from the region regarding the need for additional disposal capacity. He testified that commercial disposal wells within a 30 mile radius of the proposed disposal well experience substantial wait times for drivers who are attempting to offload their produced water. Atascosa asserts that the proposed facility will alleviate this congestion by providing another facility for the proper disposal of produced fluids.

The Facility

The area surrounding the proposed disposal facility is rural farm and ranch land. Access to the disposal facility will be off of FM 2924, which is a paved two lane public highway. The location of the entrance to the disposal facility has sufficient sight distance in both directions off of FM 2924. At an average injection rate of 12,000 BWPD, there will be approximately 90 trucks per day accessing the facility, which is large enough to stage a sufficient number of trucks at any one time that will not cause a backup onto FM 2924. The facility will be manned 24 hours per day, have a firewall built around the entire facility and have high water level switches to prevent the tanks from overflowing onto the ground. In addition, the surface facility will comply with all of the permit conditions requested by the Commission staff.

The trucks will be able to enter and exit the facility from an 80-foot wide driveway and will not have to cross in front of one another once on the facility, greatly reducing the possibility of an accident. The facility will feature a closed loop system, whereby each driver will hook up their truck by hose and offload produced water to a series of tanks, keeping vapors to a minimum, rather than allow the water to be dumped into a series of grates. The tank battery and pumps will be surrounded by a concrete containment berm, which will provide a secondary method to contain any spills or leaks. The trucks will unload in an area with a retention barricade over which the trucks will drive to enter the area. There will also be a sump and collection system for the concrete containment area and a vapor recovery system for the tanks.

Atascosa submits that it has the expertise to build and manage the proposed facility and has a current approved Form P-5 (Organization Report), a \$25,000 cash deposit for financial assurance and no pending Commission enforcement actions.

Protestants' Evidence

Ms. O'Connell expressed concerns regarding the 900-yard proximity of the proposed facility to her property. She also had concerns regarding noise, seismic activity in the past, and the number of saltwater disposal wells in the area. Ms. O'Connell introduced as evidence a proposal for decision and final order of a recent Railroad Commission contested case regarding a saltwater disposal well application ("Karnes County SWD Case") that was denied by the Commission.²

The Protestants' evidence fell into several general categories; 1) the disposal facility would be located close to an existing fault line and a series of rock out-croppings where there was known seismic activity (i.e., one of the Protestants had experienced at least one seismic activity event while living in the region); 2) noise, dust and odor nuisances which would result from the operation of the facility; 3) there was already an adequate number of saltwater disposal wells within the area; and 4) increased heavy truck traffic on FM 2924, causing road deterioration and public safety issues. Collectively, the testimony and statements in opposition to the facility assert that the proposed commercial disposal facility will have adverse effects on traffic safety, property values and the quality of life in and around the area.

EXAMINERS' OPINION

The examiners recommend that the application for commercial disposal authority pursuant to Statewide Rule 9 for the Meeks SWD Lease, Well No. 1, be approved. Atascosa has established:

1. The water resources (surface and sub-surface) are adequately protected from pollution;
2. The proposed injection well will not endanger or injure any oil, gas, or mineral formations;
3. The proposed injection well is in the public interest;
4. A satisfactory showing of financial responsibility, as required under Texas Statutes and Commission Rules.

² Oil and Gas Docket No. 02-0278322; The Application of Karnes County Properties, LLC for Commercial Disposal Authority Pursuant to Statewide Rule 9 for the KC SWD Lease, Well No. 1, Eagleville (Eagle Ford-2) Field, Karnes County, Texas.

The Meeks SWD Lease, Well No. 1, will be completed in a manner which will confine disposal fluids to the proposed disposal interval in the Lower Wilcox formation. There are no unplugged or improperly plugged wellbores within ½ mile which penetrate the proposed disposal interval, with the exception of the Schuman Well. Atascosa has proven that even with disposing of the maximum allowable volume every day for 20 years, an unlikely occurrence, the injection plume will be far short of the Schuman Well. Therefore, the Schuman Well will not serve as a conduit for the migration of disposal fluids out of the intended disposal interval. The evidence further indicates that the operation of the subject disposal well will not adversely impact any surface or subsurface usable-quality groundwater. Surface casing will be set at 5,150 feet and cemented to surface. There is a cumulative layer of shale that will prevent any disposal fluids from reaching the base of the USDW. In addition, the proposed disposal well will not endanger or injure any oil, gas, or mineral formations.

Approval of the requested permit is in the public interest. Use of the proposed disposal well will provide a method in Atascosa, Karnes, Wilson and Live Oak counties for proper disposal of produced fluids associated with the active development in the immediate region. Currently, there is only one commercial disposal facility actively accepting produced water within 10 miles of the proposed facility. Testimony from a regional salt water hauler in the area supports the need for additional disposal capacity. Having a disposal facility close to the drilling and production activity will reduce tank truck miles and reduce wait times for vacuum trucks to offload in the four-county area, resulting in lower costs for disposal, and a reduced economic limit for producing wells.

The location of the entrance to the disposal facility has sufficient sight distance in both directions off of FM 2924. The surface facility will be newly constructed and will be of sufficient size as to accommodate trucks hauling water to the facility. Compliance with permit conditions will minimize the risk of spills at the facility and will prevent the migration of any spills that occur, thereby protecting both ground and surface water. The design of the disposal facility includes a concrete retaining wall around the tanks and pumps which will help prevent any migration of fluids off the location.

One of the Protestants expressed concern that the disposal well could lead to seismic activity in the area. She asserted, without specific examples, that seismic activity had occurred in relation to other disposal wells. However, there was no evidence presented at the hearing identifying any faults in the area. Further, even if this theory is valid, several factors reduce the possibility of seismic activity in this area. The injection interval is relatively shallow at 5,700 feet and the geologic deposits are relatively young and loosely consolidated. Less stored energy is present in shallow, loosely consolidated deposits. Seismic activity of any kind is less likely to occur in this environment than in an area that is highly faulted with older, more consolidated deposits. Most importantly there was no expert testimony in support of this theory and, as already noted, there was no evidence of any significant faulting in this area.

The facts in this case can easily be distinguished from the Karnes County SWD Case. In the Karnes County SWD Case, the proposed well was to be drilled within the extra-territorial jurisdiction of Karnes City. The proposed well was in close proximity to a daycare school, two churches, senior living apartments and two nursing homes. In addition, the applicant in that case failed to prove that there was an industry need for the proposed facility.

In contrast, the proposed disposal well is located in a primarily undeveloped area and not located within the city limits or extra-territorial jurisdiction of any city or town. Further, there were no resolutions passed in opposition to approval of the proposed well and, because of its remote location, there are no conflicts with daycare schools, senior living facilities or churches. The Commission does not have direct jurisdiction over issues regarding site selection, traffic patterns, or noise abatement. The examiners believe that any impact on the Protestants' property will be minimal due to the distances involved.

FINDINGS OF FACT

1. Notice of the application was published in the *Pleasanton Express*, a newspaper of general circulation in Atascosa County, Texas, on June 12, 2013.
2. Notice of the application was sent to the Atascosa County Clerk, offset operators within 1/2 mile and to the surface owners of the disposal tract and each tract which adjoins the disposal tract on June 6, 2013.
3. The proposed injection into the Meeks SWD Lease, Well No. 1, will not endanger useable-quality groundwater.
 - a. The Commission Groundwater Advisory Unit recommends that usable-quality groundwater be protected down to a depth of 5,000 feet below the land surface.
 - b. The base of the Useable Source of Drinking Water is at 5,250 feet.
 - c. The well will have 9 5/8" surface casing set at 5,150 feet that will be cemented to the surface with 2,700 sacks of cement.
 - d. There are no wells located within the 1/4 mile radius of review that penetrate the Lower Wilcox formation. Although there are a number of wells located within the 1/2 mile radius of review, the wells either do not penetrate the disposal zone, or have cement throughout the disposal zone, with the exception of the Schuman Gas Unit No. 1, Well No.1, which is located 2,380 feet from the proposed disposal well.

4. The proposed disposal into the Meeks SWD Lease, Well No. 1, will not endanger production from other oil, gas or mineral bearing formations.
 - a. Atascosa Disposal Well Svcs, LLC ("Atascosa") plans to drill a new disposal well down to 6,800 feet.
 - b. Atascosa proposes to run 7" production casing to 6,800 feet that will be cemented up to 4,000 feet with 600 sacks of cement.
 - c. The well will be equipped with 4 1/2" tubing and packer set at 5,600 feet.
 - d. The disposal interval is used for disposal in other area wells and is continuous and suitable for disposal, with almost 400 feet of porous sand.
 - e. There is over 400 feet of impermeable shale above the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the disposal interval.
 - f. A pressure front water displacement calculation shows that, after injection of 15,000 BWPD for 20 years, the areal extent of the injected water front would be approximately 191.8 acres and have a plume radius of 1,631 feet from the proposed disposal well.
 - g. The pressure increase in the disposal formation at the closest well was calculated to be only 46 psia.
 - h. The Schuman Well is approximately 2,380 feet from the proposed disposal well and will not serve as a conduit for injected fluids to vertically migrate out of the intended disposal zone.
5. Use of the Meeks SWD Lease, Well No. 1, as a commercial disposal well is in the public interest because it will reduce hauling distances and will provide needed commercial disposal capacity for wells to be drilled, completed and produced in the area of the proposed facility.
 - a. The proposed disposal facility is located in the southeastern portion of Atascosa County. The Eagle Ford formation development core area encompasses Atascosa County and the two adjoining counties of Karnes and Live Oak.

- b. Atascosa plans to use the proposed disposal well to dispose of produced water and fracture stimulation water generated as a result of the nearby active and ongoing development of the Eagle Ford and Fashing (Edwards Lime) formations.
 - c. The Eagle Ford formation trend wells will produce significant volumes of frac and produced saltwater. Additional disposal facilities are necessary to accommodate the Eagle Ford formation development that is ongoing in Atascosa County.
 - d. The proposed disposal well is necessary to accommodate the increasingly active drilling, as there are currently only 8 other commercial disposal wells within a 15 mile radius. However, 6 of those 8 wells are at least 11 miles or further away in Karnes County from the proposed disposal facility.
 - e. Of the two "active" disposal wells near the proposed facility, the SNG Operating, LLC - Richter Lease, Well No. 2, consists of a tank and christmas tree and no activity has been seen on the lease. The second of the two active wells appears to only accept oil and gas wastes from its own trucks and is considered a private commercial disposal well.
 - f. Commercial disposal wells within a 30-mile radius of the proposed disposal well experience substantial wait times for drivers who are attempting to offload their produced water.
 - g. Use of the proposed disposal well will reduce travel time and miles traveled by waste hauling trucks, resulting in reduced costs to operators.
6. Atascosa has a current approved Form P-5 (Organization Report), a \$25,000 cash deposit for financial assurance and no pending Commission enforcement actions.

CONCLUSIONS OF LAW

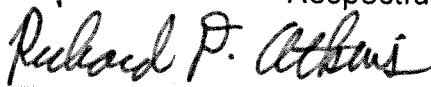
- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.

3. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Atascosa County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
4. Atascosa Disposal Well Svcs, LLC has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

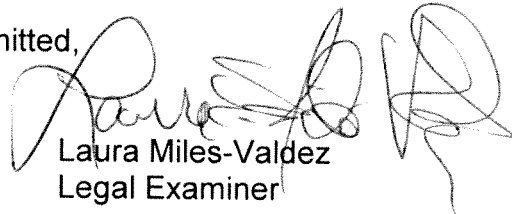
EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the application of Atascosa Disposal Well Svcs, LLC for commercial disposal authority pursuant to Statewide Rule 9 for the Meeks SWD Lease, Well No. 1, be approved, as set out in the attached Final Order.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Laura Miles-Valdez
Legal Examiner

Meeks SWD # 1
(API # 42-013-34617)
Atascosa Disposal Well Services, LLC
Atascosa County, Texas

Proposed Disposal Configuration

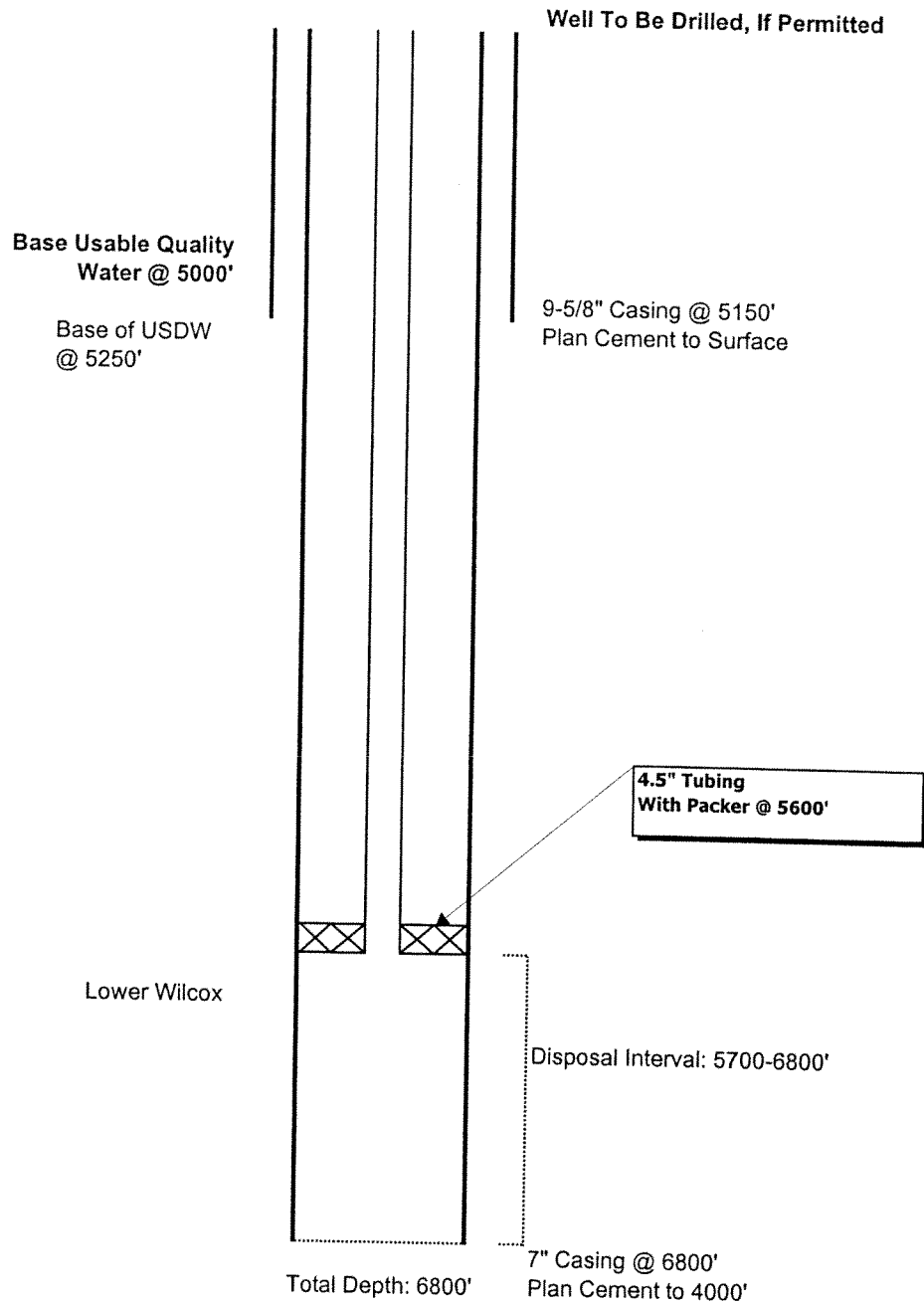


Exhibit No. 3
O & G Docket No. 01-0280541
Date: July 16, 2013
Atascosa Disposal Well Svcs